

The Invasive Investigator

Newsletter for the DoD Invasive Streptococcus Surveillance

Surveillance Underway at 5 Training Centers

Introduction

Department of Defense military medical personnel, in collaboration with the University of Tennessee at Memphis, have established an active surveillance system for invasive *Streptococcus pyogenes* disease occurring among high-risk U.S. military personnel stationed at specific military training facilities in the United States. This surveillance system will be used to determine baseline rates of invasive *S. pyogenes* disease as well as to trigger a uniform approach to outbreak investigations. Through a case-control epidemiologic approach, we will endeavor to determine the independent demographic, bacteriologic, and immunologic risk factors for invasive *S. pyogenes* infections. Additionally, we will preserve invasive *S. pyogenes* isolates so they will be available for future study and, through collaboration with reference molecular laboratories, be able to test various hypotheses regarding the pathogenesis of invasive disease.

We are currently conducting surveillance at high-risk military training facilities throughout the United States. These sites and these points of contact are listed on page 2 of this document. We can apply this protocol to investigate cases of invasive streptococcal infection among active-duty personnel occurring at other sites. For more information regarding this protocol, please contact CDR Gray (Navy), MAJ Mahmoud (Army) or MAJ Gibson (Air Force).

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News and Notes

This is the first newsletter for the protocol "An Epidemiological Study of the Immunologic, Bacteriologic, and Demographic Risk Factors for Invasive *Streptococcus pyogenes* Infections Among U.S. Military Personnel." We hope that this newsletter will give you a better understanding of study progress and findings. Also, any changes to the protocol will be addressed in this and subsequent newsletters.

There has been some discussion as to the best way to divide the time periods for reporting data. Although the original plan was to report bimonthly, MAJ Mahmoud has pointed out that reporting every two weeks would be a better reflection of the true recruit population, as this is how population data are captured. Therefore, we are requesting that all sites begin reporting data in two week increments starting with the period 8 January 1996 to 21 January 1996, inclusive. Data will then continue to be reported in two week increments (e.g., the next period would be 22 January to 4 February 1996) for the remainder of the study. We have included a revised reporting form (Form 1) that reflects this change.

The table on page 3 summarizes the data to date. Each month is divided into a first and second half which will eventually be replaced by two week increments as stated above. Blank spaces indicate that data has not been reported yet from that site. Ideally, all sites should strive to report data beginning in October. Each data report should indicate the following: Site, person reporting data, mean trainee population, number of individuals with at least one blood culture, and number of individuals with a positive



Group A Streptococcus blood culture. Please do not count the same individual more than once if he/she has had more than one blood culture.

The Naval Health Research Center would like to thank all of the associate investigators for supporting this study. Please do not hesitate to contact us if you have any questions or concerns.

Reminder

Please note that the investigators should be notified (via Form 2) if any active-duty person develops streptococcal toxic shock syndrome or is found to have a normally sterile site culture positive for *S. pyogenes*. Should local medical authorities and investigators decide an investigation is appropriate, the Naval Health Research Center's Emerging Illness Team may be able to supplement local preventive medicine assets by deploying an assist team. Extra hands can make an investigation less disruptive to other responsibilities. The tabloid article on page 3 demonstrates the type of misinformation cases of invasive *S. pyogenes* disease may arouse.

HOSPITAL BIWEEKLY *S. PYOGENES* REPORTING FORM (FORM 1)

The Department of Defense is conducting surveillance for invasive *Streptococcus pyogenes* (Group A Streptococcus) infections and streptococcal toxic shock syndrome. This form is used by hospital personnel (laboratory or preventive medicine) to report such disease to an epidemiologist who is monitoring the high-risk population(s). Report only data that occur among military personnel. These data need to be collected by each training center biweekly from hospital laboratory logs and military strength data. Please note that the high-risk populations mentioned in this reporting form are defined by the epidemiologist who gave you this form.

Please complete the following information every two weeks¹

Today's date: ___/___/___

Two week period:

___/___/___ to ___/___/___
mo day year mo day year
(Monday) (Sunday)

Training Center: _____

1. Number of high-risk active-duty personnel examined with at least one blood culture: _____
2. Number of high-risk active-duty personnel with at least one blood culture **positive** for *S. pyogenes*: _____
3. Mean size of the high-risk population during this two week period: _____
4. These data were collected by:

Rank/rate First name Last name
(Laboratory or preventive medicine person)

at: _____
(Name of hospital)

Phone:) _____

Please fax this completed form to:

_____ at (____) _____

¹The change to biweekly reporting should occur no later than the period 8-21 January, 1996. Data prior to this can be reported either biweekly or in ½ month increments.